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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,207	12/30/2003	Keun-Ho Yang	11038-140-999	1853

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MORGAN, LEWIS & BOCKIUS, LLP.
2 PALO ALTO SQUARE
3000 EL CAMINO REAL
PALO ALTO, CA 94306

EXAMINER

VUONG, QUOCHIE B

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/749,207

Applicant(s)

YANG, KEUN-HO

Examiner

Quochien B. Vuong

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/04/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/04/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 5, 7, 8, 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gottfried et al. (US 5,607,107).

Regarding claims 1 and 8, Gottfried et al. disclose a radio receiver system (figure 1a) and a method for controlling a radio receiver, comprising: a plurality of antennas (14 and 16) each adapted to receive a radio wave signal; a diversity receiver module (18 and 30) coupled to the antennas and configured to select a first radio wave signal from a first antenna to be provided as input to an audio system; and a comparator (40)

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coupled to the diversity receiver module and configured to compare the first radio wave signal with a reference value, and responsive to the comparison, signaling the diversity receiver module to select a second radio wave signal from a second antenna to be provided as input into the audio system (column 4, line 40 – column 5, line 16; and column 5, line 60 – column 6, line 13).

Regarding claims 2 and 9, Gottfried et al. disclose wherein the first radio wave is selected based on its intensity being higher than at least one other radio wave signal (column 5, line 60 – column 6, line 13)

Regarding claim 4, Gottfried et al. disclose wherein the comparator is part of the diversity receiver module (see figure 1a).

Regarding claim 5, Gottfried et al. disclose an amplifier coupled to an output of the diversity receiver module and adapted to be coupled to an audio system (column 4, lines 40-50).

Regarding claims 7 and 12, Gottfried et al. disclose wherein at least one antenna receives Frequency Modulation (FM) radio wave signals (column 4, lines 40-50).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyahara (US 2002/0058488).

Regarding claims 1 and 8, Miyahara discloses a radio receiver system (figures 1 and 4) and a method for controlling a radio receiver, comprising: a plurality of antennas (ANT1, ANT2, ANTn) each adapted to receive a radio wave signal; a diversity receiver module (2) coupled to the antennas and configured to select a first radio wave signal from a first antenna to be provided as input to an audio system; and a comparator (6 and 8) coupled to the diversity receiver module and configured to compare the first radio wave signal with a reference value, and responsive to the comparison, signaling the diversity receiver module to select a second radio wave signal from a second antenna to be provided as input into the audio system (paragraphs [0017] - [0023], and [0052] – [0069]).

Regarding claims 2 and 9, Miyahara discloses wherein the first radio wave is selected based on its intensity being higher than at least one other radio wave signal (paragraph [0054]).

Regarding claims 3 and 10, Miyahara discloses wherein the result of the comparison is the first radio wave signal intensity is greater than a predetermined intensity value (paragraph [0064]).

Regarding claim 4, Miyahara discloses wherein the comparator is part of the diversity receiver module (see figure 1).

Regarding claim 5, Miyahara discloses an amplifier coupled to an output of the diversity receiver module and adapted to be coupled to an audio system (figure 1, the

signal processing unit is inherently include an amplifier for amplifying the received signal).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gottfried et al. in view of Takayama (US 5,083,133).

Regarding claims 6 and 11, Gottfried et al. disclose the system and method of claims 1 and 8 above, respectively. Gottfried et al do not disclose wherein at least one of the antennas is a glass antenna. However, glass antenna is wel known in the art at taught by Takayama (figures 2 and 3; column 3, lines 4-27). Therefore, it would have been obvious to adapt the glass antenna of Takayama to the system and method of Gottfried et al. for better design and avoid damage to the antennas when they are used in automobile.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ohe et al. (US 4,823,142) disclose automobile antenna system.

Suzuki et al. (US 4,977,615) disclose diversity receiver.

Murakami (US 5,119,106) discloses glass antenna for a motor vehicle.

Sugawara (US 5,339,452) discloses switching diversity reception system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quochien B. Vuong
April. 02, 2006.



QUOCHIEN B. VUONG
PRIMARY EXAMINER